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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,078	06/04/2001	Franciscus Roffelsen	VRNGDE P46US	2629

7590 04/01/2004  
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EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/763,078

Applicant(s)

ROFFELSEN, FRANCISCUS

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,8 - 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 - 12 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

This office action is responsive to response filed 01/22/2004.

**Claims 1, 2 and 8 – 12 are pending.**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toennesen (US 3,583,430) in view of Chorkey (US 3,451,422).

Toennesen discloses a check valve (Fig. 4) comprising, a valve member (70,71) with a channel (76) opening into a groove (74) blocked by a flexible, ring-like valve element (75) that is displaceable to allow fluid flow past it. The pre-tension on the valve element is adjustable by relative movement between parts (70) and (71) that are connected to each other by screw threads. A screening cap is provided via screw connection to the valve member (70).

The patent to Toennesen discloses the claimed features with the exception of disclosing the flexible, ring-like valve element (75) as an O-ring i.e. flexible, ring-like valve element with a circular cross-section. The flexible, ring-like valve element (75) in Toennesen has a non-circular cross-section.

Chorkey discloses a check valve having flexible, ring-like sealing elements with different cross-sections. Figure 4 discloses an embodiment with a conventional O-ring i.e. flexible, ring-like valve element with a circular cross-section as a sealing element. Figure 11 discloses an embodiment having a flexible, ring-like valve element with a non-

circular (V-shaped) cross section and Chorkey discloses (Col. 6, lines 1 – 5) the two configurations (the circular configuration of Fig. 4 and the non-circular configuration of Fig. 11) of the sealing elements to be functional equivalents of each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the non-circular flexible, ring-like valve element in Toennesen with the flexible O-ring i.e. flexible, ring-like valve element with a circular cross-section since these are art-recognized equivalents as taught by Chorkey. Additionally, it would have been obvious to one of ordinary skill in the art to substitute an O-ring for the “V” shaped ring as O-rings are more conventional to the art as well as being easier to manufacture than a “V” shaped ring.

3. Claims 8 – 12 are allowed.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

***Response to Arguments***

Applicant's arguments filed 01/22/04 with respect to claims 1 and 2 have been fully considered but they are not persuasive. Applicant is arguing that Toennesen is teaching away from the use of an O-ring since the sealing element in Toennesen has a shape with flexible ends or a shape with extremities. While it may be that the sealing elements disclosed in Toennesen display a shape with flexible ends or a shape with extremities, the disclosure of Chorkey shows the functional equivalence of the use of an O-ring to that of a ring with a non-circular cross section in a groove with sloping sealing surfaces just as in Toennesen. The advantage of the sealing element of Toennesen is that of reduced mass of the sealing element resulting in a faster response. However to one of ordinary skill in the art, the use of an O-ring as taught in Fig. 4 of Chorkey is attractive because the use of an O-ring is cheaper than that of a sealing ring with non-circular cross-section. As set forth above the office action relies on Chorkey for the teaching it provides on the use of an O-ring.

As for the argument that the references cited in the office action lack sufficient motivation for combinability, it is noted that the courts have concluded that there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). Also references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969).

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Regarding the assertion that none of the cited art discloses the limitation of " a setting mechanism for steplessly setting the circumferential edges such that they are lockable and displaceable relative to each other", the office action clearly identifies the elements (70, 71) as comprising the setting mechanism including the threaded interfaces for the elements (70, 71) for steplessly setting the circumferential edges such that they are lockable and displaceable relative to each other.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel, can be reached on (703) 308 - 1272. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 - 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy  
Examiner  
Art Unit 3753